Remarks

Reconsideration of this application as amended is respectfully requested.

Claims 23-27 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 5,956,267 of *Hurst et al.* ("*Hurst*").

Claims 28-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hurst* in view of U.S. Patent No. 5,748,524 of *Chen et al.* ("*Chen*").

The Examiner has rejected claims 23-27 under 35 U.S.C. § 102(e) as being anticipated by *Hurst*. Applicants respectfully submit, however, that new claim 34 is not anticipated by *Hurst*. New claim 34 is a magnetic memory that includes the limitations

> magnetic memory cell including a sense layer having an easy axis;
>
> keeper structure for applying magnetic fields using exchange coupling to a pair of edge regions of the sense layer that force magnetizations in the edge regions to have a substantially similar direction which is substantially perpendicular to the easy axis of the sense layer, the keeper structure further for providing a flux closure path between the edge regions.

(New claim 34) (Emphasis added).

Hurst does not disclose a keeper structure for applying magnetic fields to edge regions of a sense layer that force magnetizations in the edge regions to have a substantially similar direction which is substantially perpendicular to an easy axis of the sense layer as claimed in new claim 34. *Hurst* discloses a keeper structure and a bit region but does not disclose an easy axis in the bit region and does not disclose directions of magnetizations in edge regions.

Moreover, *Hurst* does not disclose a keeper structure for applying magnetic fields to edge regions of a sense layer using exchange coupling as claimed in new claim 34. Instead, *Hurst* discloses a keeper structure 30 that is

isolated from a bit region 70 by a dielectric layer 60. (See Figs 7-8 of *Hurst*).

Furthermore, new claim 34 is a magnetic memory that includes the limitations

> magnetic memory cell including a sense layer having an easy axis;
>
> keeper structure for applying magnetic fields using exchange coupling to a pair of edge regions of the sense layer that force magnetizations in the edge regions to have a substantially similar direction which is substantially perpendicular to the easy axis of the sense layer, the keeper structure having a <u>proximity</u> to the sense layer which provides a flux closure path between the edge regions.

(New claim 34) (Emphasis added).

Hurst does not disclose a keeper structure having a proximity to a sense layer which provides a flux closure path between the edge regions of the sense layer as claimed in new claim 34. Instead, *Hurst* discloses a keeper structure 30 that is separated from a bit region 70 by a dielectric layer 60. (See Figs 7-8 of *Hurst*).

It is therefore submitted that the keeper structure of new claim 34 that uses exchange coupling to force magnetizations in the edge regions of a sense layer to have a substantially similar direction which is substantially perpendicular to an easy axis of the sense layer and that has a proximity to the sense layer which provides a flux closure path between the edge regions of the sense layer is not anticipated by the teachings of *Hurst*.

Given that new claims 35-44 depend from new claim 34, it is submitted that new claims 35-44 are not anticipated by *Hurst*.

Applicants further submit that new claim 34 is not obvious in view of *Hurst* and *Chen*. *Hurst* does not disclose or suggest a keeper structure for applying magnetic fields to edge regions of a sense layer that force magnetizations in the edge regions to have a

substantially similar direction which is substantially perpendicular to an easy axis of the sense layer as claimed in new claim 34.

Chen does not teach or suggest a keeper structure which provides a flux closure path between the edge regions of a sense layer as claimed in new claim 34. Instead, *Chen* discloses a memory cell 20 having a separated pinning material 30 disposed on each edge of a memory cell 20 (see Figs 5 and 6 of *Chen*). It is submitted that the disconnected pinning material 30 does not provide a flux closure path as claimed in new claim 34.

It is therefore submitted that the keeper structure of new claim 34 which provides a flux closure path between edge regions of a sense layer while forcing megnetizations in edge regions to desired orientations is not obvious in view of the separated keeper of *Hurst* and the disconnected pinning materials of *Chen*.

Given that new claims 35-44 depend from new claim 34, it is submitted that new claims 35-44 are not obvious in view of *Hurst* and *Chen*.

It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable objections and rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 08-2025 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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